Malaria Indicator Survey

Supervisor's Manual

ICF International
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The main objectives of The DHS Program are to: 1) provide improved information through appropriate data collection, analysis, and evaluation; 2) improve coordination and partnerships in data collection at the international and country levels; 3) increase host-country institutionalization of data collection capacity; 4) improve data collection and analysis tools and methodologies; and 5) improve the dissemination and utilization of data.

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NOTE TO SURVEY ORGANIZERS: HOW TO USE THIS MANUAL

This manual is designed to explain to field supervisors how to perform their duties. This is a "model" manual that reflects the standard Malaria Indicator Survey protocol for how to organize and implement the survey. Any changes from the standard protocol will need to be reflected in modifications to this manual. Country-specific changes to the model questionnaires may necessitate changes in this manual, so it is important for survey organizers to carefully review the manual before using it. To facilitate the task of customizing this manual, the text in certain places has been put in brackets to denote that it is likely to require modification.

The most responsible and mature field staff should be appointed to the positions of field supervisor. The first opportunity for the training of supervisors occurs with the pretest of the questionnaire. If at all possible, staff who will be supervisors during the main survey should participate in the pretest. They should attend all pretest training sessions, and supervisors should get experience as interviewers during the pretest. This will provide a thorough knowledge of and experience with the questionnaire even before the training of field staff for the main survey. Likewise, if a personal digital assistant (PDA) or tablet computer is being used for the main survey, it should be used during the pretest as well, and key staff similar to those identified here should take part in the PDA or tablet pretest. This manual has been developed for use with paper questionnaires. Although some mention is made of potential modifications when using PDAs or tablet computers, additional training materials are needed to explain the details of the electronic data collection procedures. These are not included in this manual.

In cases in which supervisors have been designated before the interviewer training, it is important that they participate in the interviewer training for the main survey. Active involvement of supervisors in interviewer training is necessary for an understanding of the role of the interviewer and the problems teams may encounter during fieldwork. Supervisors should participate with interviewer trainees in "role playing" interviews and supervise the practice interviewing in the field before the start of fieldwork. The latter activity gives supervisors and interviewers experience in working together as a team (see *Guidelines for the Malaria Indicator Survey Interviewer Training*).

In other cases, the final selection of field supervisors will be made after completion of interviewer training. After interviewer training and before the beginning of fieldwork for the main survey, two to three days of additional training should be provided on the specific duties of supervisors. This is to ensure that all teams will be following a uniform set of procedures. The additional training is particularly important for individuals who did not participate in the pretest but were selected to be supervisors at the conclusion of interviewer training. It is at this additional training that this manual will be discussed in detail.

An electronic file for this manual is available on the Roll Back Malaria Partnership website: http://www.rbm.who.int.

I. INTRODUCTION TO THE [COUNTRY][1] MALARIA INDICATOR SURVEY

The [Country] Malaria Indicator Survey (MIS) is a [national] sample survey designed to provide information for monitoring and evaluation (M&E) of malaria programs in [Country]. The [Country] MIS will involve interviewing a randomly selected sample of household respondents and women who are between 15 and 49 years of age and who live in the selected households. These respondents will be asked questions about their background, the children to whom they have given birth, dwelling conditions, their use of mosquito nets and antimalarial medicines for themselves and their children, and other questions that will be helpful to policymakers and administrators in controlling malaria.

Field supervisors for the [Country] MIS have an important position. They are the primary links between the director of field operations and the interviewers. As such, they are responsible for ensuring both the quality and progress of fieldwork.

This manual has been prepared to provide the information needed by field supervisors to carry out their duties. Candidates for the positions of field supervisor for the survey should study this manual carefully during their training. They should also study the Interviewer's Manual because it is necessary for them to thoroughly understand the questionnaire and the procedures for completing it. Individuals selected to serve as supervisors should continue to refer to these manuals throughout the fieldwork period.

A. SURVEY OBJECTIVES

The [COUNTRY] MIS is part of a worldwide survey program. The Demographic and Health Survey (DHS) Program is one organization that conducts MIS. The MIS is designed to:

- Collect information on various aspects of malaria;
- Measure geographic and socioeconomic differences in malaria indicators;
- Collect a blood drop from young children for anemia and parasitemia testing;
- Assist countries in conducting surveys periodically to monitor and evaluate the national malaria control program; and
- Provide an international database that can be used by researchers investigating topics related to malaria.

As part of The DHS Program, surveys are being carried out in countries in malaria endemic countries worldwide. Data from these surveys are used to better understand the malaria situation in the countries surveyed.

[1] Text in brackets [ ] is to be modified on a country-specific basis. This manual was written assuming fieldwork will be conducted in 2015; appropriate changes will have to be made when fieldwork is to be conducted at a later date.

B. SURVEY ORGANIZATION

The MIS is a comprehensive survey involving several agencies and many individuals. [Name of Organization] has the major responsibility for conducting the survey. [Description of participation of other organizations or committees that are involved in designing or implementing the MIS.] [Description of survey organization, naming the project director, deputy director, and fieldwork coordinators. Clarification of how interviewers relate to these people and lines of authority.] Each person selected to work on the survey will work in a team consisting of [number] female interviewers, [a health investigator to conduct anemia and parasitemia tests], and a supervisor. Each supervisor will be responsible for the team of interviewers. She/He will also be responsible for editing all completed questionnaires in the field. The specific duties of the supervisor are described in detail in the following sections of this manual. In the central office, data entry staff and computer programmers will also be assigned to the project.

C. TRAINING

It is important that field supervisors attend the interviewer training for the main survey. Supervisors should not skip any of the training sessions, even if they participated in the pretest. Active involvement of supervisors in interviewer training is necessary for an understanding of the role of the interviewer and the problems teams may encounter during fieldwork to be better equipped to take corrective action in the field. Supervisors should participate with interviewer trainees in "role playing" interviews and supervise the practice interviewing in the field before the start of fieldwork. The practice interviewing gives supervisors and interviewers experience in working together as a team. Supervisors, where appropriate, should also take part in the pretest.

After interviewer training, two to three days of additional training will be provided on the specific duties of supervisors. This is to ensure that all teams will be following a uniform set of procedures and to teach supervisors how to check the fieldwork and edit completed questionnaires.

D. RESPONSIBILITIES OF THE FIELD SUPERVISOR

The field supervisor is the senior member of the field team. She/He is responsible for the well-being and safety of team members, as well as the completion of the assigned workload and the maintenance of data quality. The supervisor receives her/his assignments from and reports to the [field coordinator/project director]. The specific responsibilities of the supervisor are to—

- Make the necessary preparations for the fieldwork;
- Organize and direct the fieldwork; and
- Conduct periodic spot-check reinterviews.

In addition, the field supervisor should monitor interviewer performance with the aim of improving and maintaining the quality of the data collected. Close supervision of interviewers and editing of completed interviews are essential to ensure that

accurate and complete data are collected. Because the collection of high-quality data is crucial to the success of the survey, it is important that supervisors are mature, responsible women/men who execute their duties with care and precision. This is especially important during the initial phases of fieldwork, when it is possible to eliminate interviewer error patterns before they become habits.

To prepare for fieldwork, the supervisor must do the following:

1. Obtain sample household lists and/or maps for each area in which his/her team will be working.

2. Become familiar with the area where the team will be working and determine the best arrangements for travel and accommodations.

3. Contact local authorities to inform them about the survey and gain their support and cooperation.

4. Obtain all monetary advances, supplies, and equipment necessary for the team to complete its assigned interviews [and anemia and parasitemia tests].

Careful preparation by the supervisor is important for facilitating the work of the team in the field, for maintaining interviewer morale, and for ensuring contact with the central office throughout the fieldwork.

During the fieldwork, the supervisor will do the following:

1. Assign work to interviewers, taking into account the linguistic competence of individual interviewers and ensuring that there is an equitable distribution of the workload.

2. Maintain fieldwork control sheets and make sure that assignments are carried out.

3. Regularly send (or upload) completed questionnaires and progress reports to the central office and keep headquarters informed of the team's location and progress.

4. Communicate any problems to the [field coordinator/project director].

5. Arrange for lodging and food for the team. Accountability procedures (financing/receipts) will be specified by [the local implementing agency].

6. Make an effort to develop a positive team spirit. A congenial work atmosphere, along with careful planning of field activities, contributes to the overall quality of the survey.

7. Take charge of the team vehicle, ensuring that it is kept in good repair and that it is used only for project work. Coordinate team's use of public transportation if vehicles are not used.

8. Ensure that biowaste materials are disposed of in accordance with the standard protocol.

Monitoring interviewer performance requires that the supervisor do the following:

1. Observe at least one interview every day [and at least one anemia test and one parasitemia test].

2. Edit all completed questionnaires in the field; editing must be completed before leaving the sample area to cut back on expensive callbacks later on. If using a PDA/tablet review all questionnaires for completeness and accuracy before leaving the sample area to ensure any errors are addressed.

3. Conduct regular spot-check reinterviews.

4. Conduct regular review sessions with each interviewer and advise them of any problems found with their work.

5. Ensure completed consent forms and questionnaires are kept in order and pack them up to be sent to the central office.

II. PREPARING FOR FIELDWORK

A. COLLECTING MATERIALS FOR FIELDWORK

Before leaving for the field, the supervisor is responsible for collecting adequate supplies of the materials the team will need in the field. These items are listed below. See Annex 1 for an example.

Fieldwork documents:

- Supervisor's Manual
- Interviewer's Manual
- Maps and household listing forms for all clusters in the assigned area
- Letters of introduction to local authorities
- Household, Woman's and Biomarker Questionnaires [in the appropriate languages]
- Supervisor's Assignment Sheets
- Interviewer's Assignment Sheets
- Interviewer Progress Sheets
- Biomarker Field Manuals

Supplies and equipment:

- Blue pens for interviewers
- Red pens for the supervisor
- Clipboards, briefcases, and backpacks
- Paper clips, scissors, string, staplers and staples, sellotape, etc.
- Envelopes to store completed questionnaires
- First aid kit
- [Blood collection supplies and the HemoCue instrument]
- [Rapid diagnostic tests and slides]

Funds for field expenses:

- Sufficient funds to cover expenses for the team
- [Funds for fuel and minor vehicle repairs]
- [Funds for guides]
- [Funds for communicating with the central office]
- [Advances for per diem allowances for the team]

[INCLUDE A BRIEF DESCRIPTION OF PROCEDURES FOR MAKING PERIODIC PAYMENTS TO THE TEAMS, INCLUDING FUNDS FOR FUEL AND VEHICLE REPAIRS, GUIDES, ILLNESSES OR INJURIES TO TEAM MEMBERS, AND COMMUNICATING WITH THE CENTRAL OFFICE. EXPLAIN HOW AND WHEN ADVANCES FOR PER DIEM ALLOWANCES AND SALARY PAYMENTS WILL BE MADE.]

B. Arranging Transportation and Accommodations

It is the supervisor's responsibility to make all necessary travel arrangements for his or her team, whenever possible, in consultation with the central office. Vehicles are generally provided to transport the team to assigned work areas; however, in some cases, it may be necessary to arrange for other means of transportation. The supervisor is responsible for the maintenance and security of the team vehicle. The vehicle should be used exclusively for survey-related travel, and when not in use, it should be kept in a safe place. The driver of the vehicle takes instructions from the supervisor. In some cases, it may be necessary to arrange for other means of transportation; the supervisor also has the responsibility for making these arrangements.

In addition to arranging transportation, the supervisor is in charge of arranging for food and lodging for the team. If they wish, interviewers may make their own arrangements, as long as these do not interfere with fieldwork activities or break the team spirit. Lodging should be reasonably comfortable, located as close as possible to the interview area, and provide secure space to store survey materials. Because travel to rural clusters is often long and difficult, the supervisor may have to arrange for the team to stay in a central place.

C. Contacting Local Authorities

It is the supervisor's responsibility to contact the [regional, provincial, district, and village] officials before starting work in an area. Letters of introduction will be provided, but tact and sensitivity in explaining the purpose of the survey will help win the cooperation needed to carry out the interviews.

D. Contacting the Central Office

Each supervisor should arrange for a system to maintain regular contact with the central office staff before leaving for the field. Regular contact is needed for supervision of the team by central office staff, payment of team members, and the return of completed questionnaires for timely data processing. Supervisors should contact the central office whenever in doubt of procedures or when problems are encountered that require assistance beyond their capacity.

E. Using Maps to Locate Clusters

[ADAPT SECTION TO REFLECT SPECIFIC CHARACTERISTICS OF SAMPLE DESIGN.]

A major responsibility of the field supervisor is to assist interviewers in locating households in the sample. The [director of field operations/project director] will provide the supervisor with maps and a copy of the household listing for each of the clusters in which his/her team will be working. These documents enable the team to identify the cluster boundaries and to locate the households selected for the sample. The representativeness of the whole survey depends on finding and visiting every sampled household.

Each team will be given general cluster maps, household listing forms (or e-forms if using tablets), and sketch maps and/or written descriptions of the boundaries of selected areas. Regional or provincial maps help the supervisor determine the location of sample areas and the distance between them, while general cluster maps and sketch maps of the sampled clusters will help identify how to reach selected households or dwellings.

A cluster is the smallest working unit in any census or survey operation that can easily be covered by one enumerator. It has identifiable boundaries and lies wholly within an administrative or statistical area. The general cluster maps may show more than one cluster (see Figure 1). Each cluster is identified by a number (e.g., EA-05, enumeration area 05). Symbols are used to indicate certain features on the map such as roads, footpaths, rivers, and railroads (see Figure 1). Sketch maps show more details of the selected cluster (see Figure 2).

In most clusters, the boundaries follow easily recognizable land features (such as rivers, roads, railroads, swamps). However, at times, boundaries are invisible lines. The location and determination of invisible boundaries will require some ingenuity. The following guidelines are suggested to locate the selected clusters:

1. Identify on the map the road used to reach the cluster. When you reach what appears to be the cluster boundary, verify this by checking the location of actual terrain features and landmarks against their location on the map. Do not depend on one single feature; use as many features as possible.
2. It is usually possible to locate unnamed roads or imaginary lines by asking local authorities or people living in the area. In most cases, these people will know where the villages or other landmarks are, and by locating these, you can usually determine where the boundary runs.

Figure 1. Example of a General Cluster Map

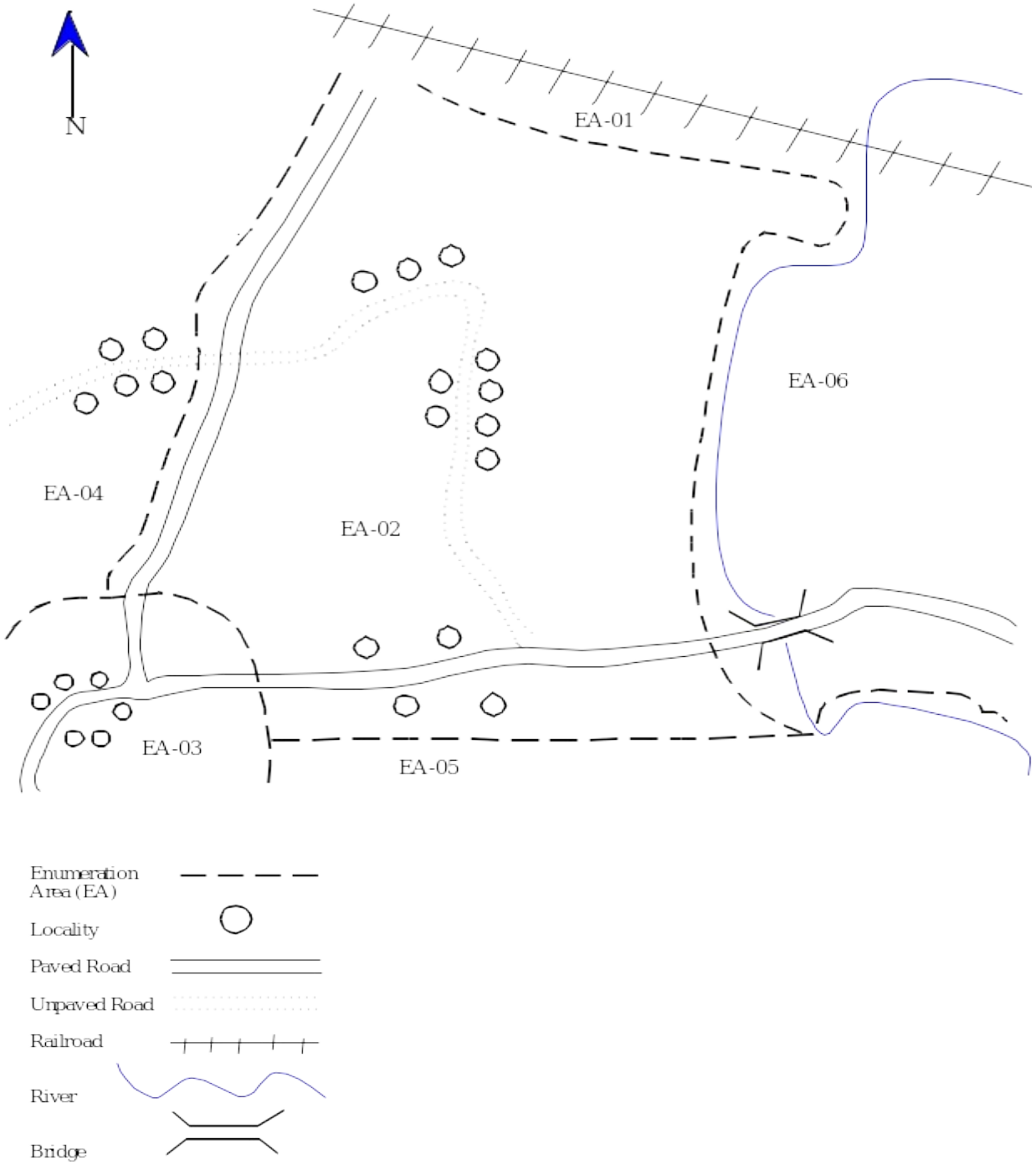
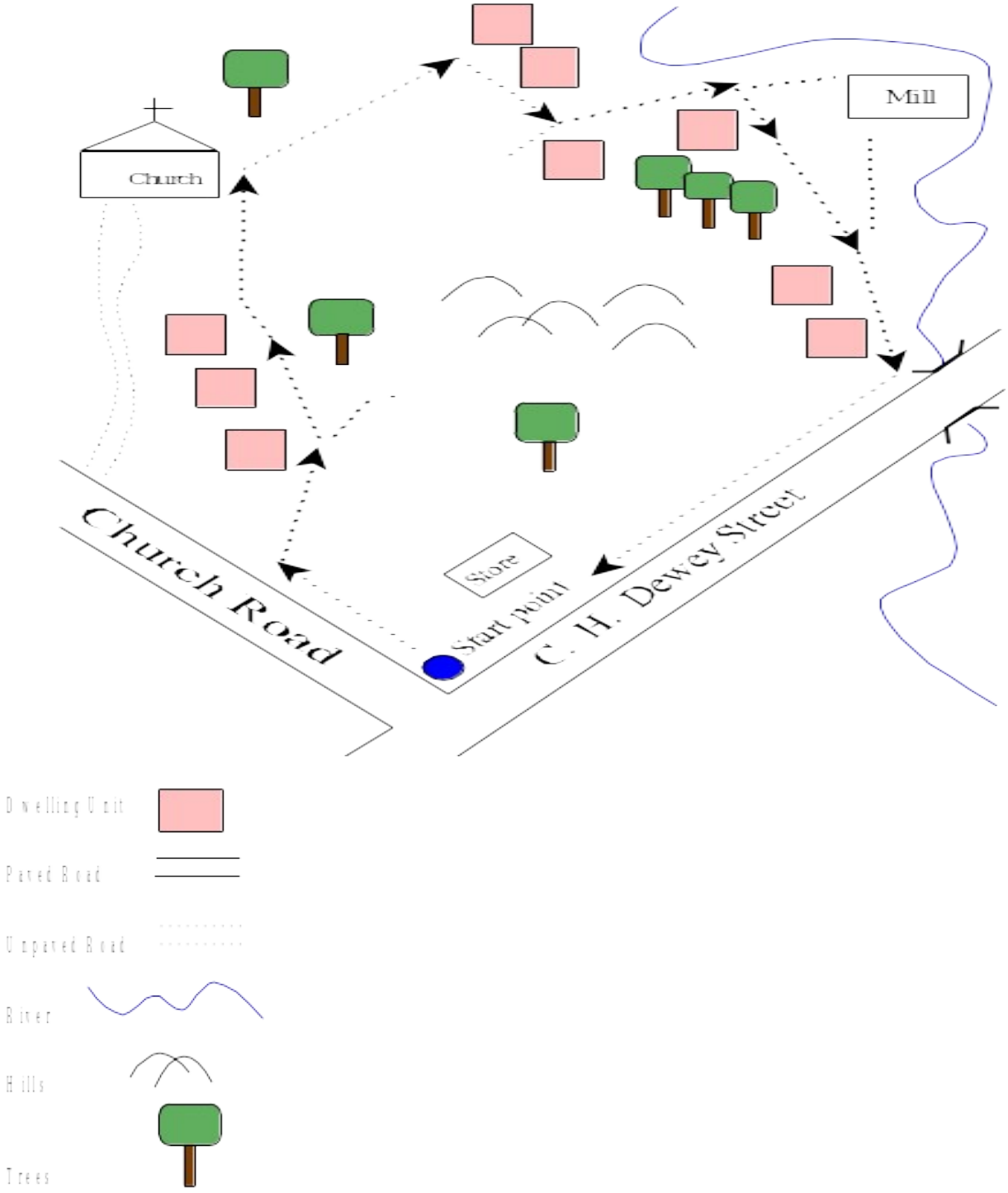


Figure 2. Example of a Sketch Map



3. Although there are cases in which boundaries shown on the map no longer exist or have changed location (e.g., a road has been relocated or a river has changed course), do not jump to conclusions. If you cannot locate a cluster, go on to the next one and discuss the matter later with the [field coordinator/project director.]

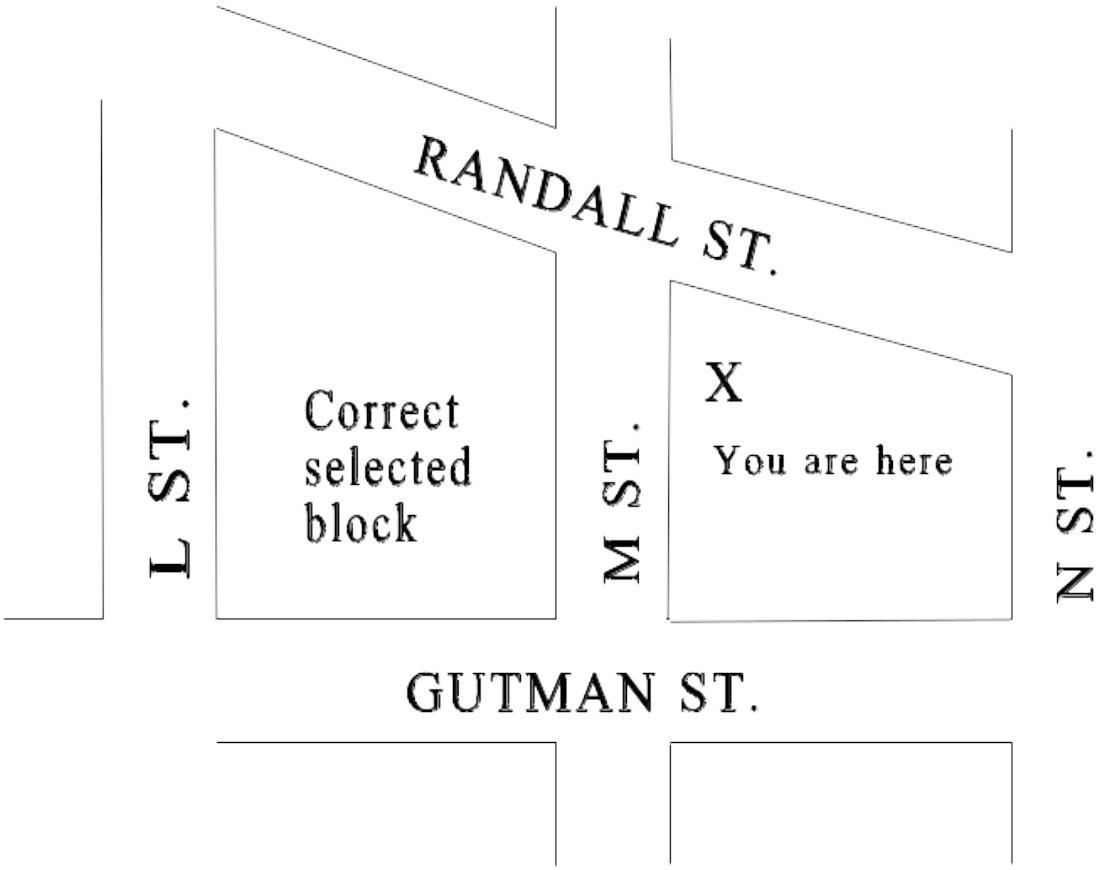
4. In urban areas, street names will often help you locate the general area of clusters. Boundaries can include streets, alleys, streams, city limits, power cables, walls, and rows of trees, etc.

5. Check the general shape of the cluster. This will help you determine whether you are in the right place.

6. Read the written description.

7. Locate all the cluster boundaries before you begin interviewing. For example, if the cluster is a rectangular block, the names of three boundary streets are not enough to unequivocally identify the cluster; check all four boundary streets (see Figure 3).

Figure 3. Importance of Identifying All Cluster Boundaries



F. FINDING SELECTED HOUSEHOLDS

[Section to be adapted to reflect specific characteristics of sample design.]

In most cases, the selected households can be located by referring to the household listing form or to the detailed maps of the selected clusters. Because people move around, and sometimes the listing teams may have made errors, you may have difficulty locating the residents of dwellings that were selected. The following are examples of some problems you may encounter and how to deal with them:

1. The household in the selected dwelling has moved away and the structure is vacant. If a household has moved out of the structure where it was listed and no one is living in the structure, you should consider the structure vacant and enter code '6' (DWELLING VACANT OR ADDRESS NOT A DWELLING) on your Supervisor's Assignment Sheet. (This sheet is described in Section IV.A.)

2. The household in the selected dwelling has moved away and a new one is now living in the same structure. In this case, the new household should be interviewed.

3. The dwelling number and name of household head do not match what is found in the field. Say, for example, that Jerry Jenkins is listed as the household head for dwelling MIS-003, but when the interviewer goes to MIS-003, she finds that the household living there is headed by Susan Smith. Consider whichever household is living in MIS-003 as the selected household, that is, the household headed by Susan Smith should be interviewed. Check carefully, however, that you are indeed in the right cluster and have identified the selected dwelling.

4. The household listed in a selected dwelling is actually living in a dwelling that was not selected. If, for example, Jerry Jenkins is listed as the household head for dwelling MIS-003, but Jerry Jenkins actually lives in MIS-028, the household living in MIS-003 should be interviewed. In other words, if there is a discrepancy between the dwelling number and the name of the household head, interview whoever is living in the selected dwelling. Again, make absolutely sure that you are in the right cluster and have identified the selected dwelling.

5. The listing shows only one household in the dwelling, but two households are living there now. In this case, both households should be interviewed. Make a note on your Supervisor's Assignment Sheet next to the household that was not on the listing. Assign the new household a household number, enter the number on your Supervisor's Assignment Sheet, and instruct the interviewer to enter the new household number on the Interviewer's Assignment Sheet and on the questionnaire. However, if the listing shows two households in the dwelling unit, only one of which was selected, and you find three or more households there now, only interview the one that had been selected and ignore the others.

6. The head of the household has changed. In some cases, the person who is listed as the household head may have moved away or died since the listing.

Interview the head of household that is living there now and record the new name in the appropriate section of the forms and questionnaires.

7. The house is all closed up and the neighbors say the people are away and will be back in several days or weeks. Code as a ‘3’ (ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME) on the Supervisor’s Assignment Sheet.

8. The house is all closed up and the neighbors say that no one lives there; the household has moved away permanently. Enter code ‘6’ (DWELLING VACANT OR ADDRESS NOT A DWELLING) on the Supervisor’s Assignment Sheet.

9. The selected dwelling is actually a shop and no one lives there. Check very carefully to see whether anyone is living there. If not, enter code ‘6’ (DWELLING VACANT OR ADDRESS NOT A DWELLING) on the Supervisor’s Assignment Sheet.

10. The selected structure is not found in the cluster, and residents say that the dwelling was destroyed in a recent fire or some other natural catastrophe. Enter a code ‘7’ (DWELLING DESTROYED) on the Supervisor’s Assignment Sheet.

III. ORGANIZING AND SUPERVISING FIELDWORK

A. ASSIGNING WORK TO INTERVIEWERS

The following tips may be helpful to the supervisor in assigning work:

1. Make daily work assignments. Be sure each interviewer has enough work to do for the day, taking into account the duration of an interview and the working conditions in the area. [The director of field operations] will advise you about how many interviews each interviewer should be able to complete in a day.

   2. Assign more interviews than an interviewer can actually do in one day. This will be necessary because some households and/or women may not be available for interview at the time of the interviewer's visit. Sometimes there may be as many as three or four of these cases a day for a particular interviewer. Assign fewer households at the beginning of the survey to allow time for discussion of problems and for close supervision.

   3. Distribute work fairly among the interviewers. Work should be assigned taking into account the capabilities and strengths of each interviewer but never consistently assigning more difficult workloads to certain interviewers. Drawing numbers out of a bowl is a good system to ensure that team and interviewer assignments are distributed on a random basis and that interviewers are aware of this. Bad feelings among the interviewers can be avoided by using this system. If an interviewer is unlucky and consistently draws difficult assignments, the supervisor can purposely provide her some easier assignments.

   4. Ensure that each interviewer has all the required information and materials for completing the work assignment.

   5. Maintain complete records each day using the control sheets (see Section IV). All assignments and work completed by each interviewer and for each work area should be carefully monitored for completeness and accuracy.

   6. Make sure that all selected households and eligible women for that cluster have been interviewed before leaving an area. See Section III.C for details on how to handle pending interviews.

   7. Reassign a household or individual interview to a different interviewer if it turns out that the interviewer knows the respondent. Interviewers are not allowed to interview anyone they know.

   8. Finally, it is the responsibility of the supervisor to make sure that the interviewers fully understand the instructions given to them and that they adhere to the work schedule. The work schedule is prepared in advance by the central office, and adherence to it is crucial to avoid overruns in the total amount of time and money allocated for the fieldwork. Supervisors should also monitor the work of each interviewer to assess whether she is performing according to the standards set by the central office and should notify the central office in the case of poor performance.

B. REDUCING NONRESPONSE

One of the most serious problems in a sample survey of this type is nonresponse—that is, failure to obtain information for selected households or failure to interview eligible women. A serious bias could result if the level of nonresponse is high. One of the most important duties of the supervisor is to try to minimize this problem and to obtain the most complete information possible. In many cases, interviewers will need to make return visits to households in the evening or on the weekends to reduce nonresponse. It is a time-consuming task and requires strict monitoring by means of the control sheets.

Nonresponse may be classified into three basic types:

- **Type 1**—The selected household cannot be located.
- **Type 2**—A respondent eligible for the individual interview cannot be located.
- **Type 3**—A respondent refuses to be interviewed.

Various ways of dealing with these types of nonresponse are discussed below.

Type 1—The interviewer is unable to locate the selected household

a. ***Occupied structure inaccessible.*** There may be some occupied structures for which no interviews can be conducted—for example, because of impassable roads, etc. The interviewer should be instructed to hold the questionnaire until later. She should make another attempt to reach the dwelling at a later date when the situation may have changed. The supervisor should immediately inform the director of field operations of any difficulty in gaining access to a whole cluster or a sizable number of structures within the same cluster—for instance, during natural disasters or civil unrest.

b. ***Structure not found.*** The supervisor should make sure the interviewer has tried several times to locate the structure using items such as the household listing form and maps. If she is still unsuccessful, the supervisor should attempt to locate the structure and ask neighbors whether they know anything about the structure or the household members. Again, if this problem occurs frequently, it should be reported to the director of field operations. Although no interview has taken place, the cover sheet of a Household Questionnaire should be filled out and code ‘8’ (DWELLING NOT FOUND) filled in for the result code.

c. ***Structure nonresidential, vacant, or demolished.*** If the interviewer indicates that a structure is not a dwelling unit or that it is vacant or demolished, the supervisor should verify that this is the case. If the interviewer is correct, there is no need for further callbacks (return visits). Although no interview has taken place, the cover sheet of a Household Questionnaire should be filled out and result code ‘6’ (DWELLING VACANT OR ADDRESS NOT A DWELLING) should be entered.

Type 2—The interviewer is unable to locate the woman eligible for the individual interview

a. ***No one home at time of call.*** The interviewer should make every effort to contact neighbors to find out when the members of the household will be at home or where they might be contacted. At least three visits should be made to locate the household members. Sometimes it may be necessary to call at mealtime, in the early morning, in the evening, or on the weekend. However, the interviewer should not make "hit or miss" calls just to fill the quota of three visits. *Under no circumstances is it acceptable to make all three visits on the same day.*

b. ***Respondent temporarily absent.*** The respondent may not be at home or may be unable to complete the interview at the time of the first call. The interviewer should find out from other household members or neighbors when the respondent can best be contacted, and a return visit should be made then. If the respondent is still not at home at the time of the second visit, another time should be set for a return visit. At least three attempts should be made to locate the respondent. If the interviewer is not able to complete the entire interview during the initial visit, the procedure for callbacks should be followed.

Type 3—The respondent refuses to be interviewed

The number of refusals reported by each interviewer should be closely monitored. If an interviewer reports an unusually high number of refusals, it may indicate that she gives up too easily or explains the survey inadequately. If this appears to be the case, the supervisor should promptly observe the interviewer. Suggestions for handling potential refusals include the following:

a. ***Approach respondent from their point of view.*** Refusals may stem from misconceptions about the survey or other prejudices. The interviewer must consider the respondent's point of view, adapt to it, and reassure her. If there is a linguistic or ethnic barrier between the respondent and the interviewer, the supervisor should, if possible, send a different interviewer to complete the questionnaire.

b. ***Postpone interview to another day.*** If the interviewer senses that she has arrived at an inconvenient or awkward time, she should try to leave before the respondent gives a final "no"; she can then return another day when circumstances are more likely to result in a successful interview.

c. ***Carry out the interview yourself.*** The supervisor's knowledge, skill, and maturity may enable her/him to complete a difficult interview when the assigned interviewer has been unable to do so.

C. HANDLING PENDING INTERVIEWS

When information has not been collected from a selected household or from an eligible respondent and the return visits have not been completed, the interview is considered "pending." All materials pertaining to this interview should remain with the interviewer until she has completed the pending interview. Supervisors should keep track of all assignments on the Supervisor's Assignment Sheet (see Section IV.A).

Completing callbacks for pending interviews is time-consuming and should be carefully planned. If a few interviews remain pending as interviewing in a cluster nears completion, one or two interviewers should be assigned to remain in the area and complete the interviews, while the rest of the team proceeds to the next assignment area. In this way, the whole team is not kept waiting for one or two interviewers to finish. Clear instructions should be left with the interviewers as to where and when to rejoin the team and what method of transportation should be used.

D. MAINTAINING MOTIVATION AND MORALE

The supervisor plays a vital role in creating and maintaining motivation and morale among the interviewers—two elements that are essential to good-quality work. To achieve this, it is necessary to make sure that interviewers—

- Understand clearly what is expected of them;
- Are properly guided and supervised in their work;
- Receive recognition for good work;
- Are stimulated to improve their work; and
- Work in tranquil and secure conditions.

In working with the interviewers, it may be useful to adhere to the following principles:

1. Rather than giving direct orders, try to gain voluntary compliance before demanding it.

2. Without losing a sense of authority, try to involve the interviewers in decision-making, and at the same time, see to it that the decision remains firm.

3. When pointing out an error, do it with tact, in a friendly manner, and in private. Listen to the interviewer's explanation, show her that you are trying to help her, and examine the causes of the problem together.

4. When interviewers voice complaints, listen with patience and try to resolve them.

5. Try to foster team spirit and group work.

6. Under no circumstances should you show preference for one or another of the interviewers.

7. Try to develop a friendly and informal atmosphere.

Finally, remember that encouraging words, instructions, and constructive criticism are not worth anything unless the supervisors set good examples. It is important to demonstrate punctuality, enthusiasm, and dedication to demand the same of other team members. Never give the impression that you are working less than other members of the team, or that you are enjoying special privileges; this may produce a lack of faith in the project and cause general discontent. An ill-prepared supervisor will not be able to demand high-quality work from interviewers and will lose

credibility and authority. Interviewer morale and motivation depend on your morale and motivation.

IV. MAINTAINING FIELDWORK CONTROL SHEETS

Control of fieldwork within sample clusters is maintained by keeping control sheets for interviewer assignments. Four forms are used to maintain control of questionnaires and measure progress:

1. Supervisor's Assignment Sheet
2. Interviewer's Assignment Sheet
3. Blood Sample Transmittal Sheet
4. Interviewer's Progress Sheet

A. SUPERVISOR'S ASSIGNMENT SHEET

For each cluster, one Supervisor's Assignment Sheet should be completed by the supervisor and returned to the head office with the questionnaires from that cluster. An example of the Supervisor's Assignment Sheet is shown in Annex 2.

The first step in completing the Supervisor's Assignment Sheet is to copy the cluster identification information (cluster number and name of the locality) from the household listing form or the map. The cluster number is a [three]-digit number and will be written on the top of each page of the household listing.

The next step is to record the information for all selected households from the household listing forms or the maps. They should be written on the Supervisor's Assignment Sheet *in the same order* in which they are written on the household listing forms. When the households are written in a different order, it causes unnecessary confusion during the data processing operation, especially because the questionnaires will be put in order by household number. The director of field operations will provide the supervisor with the appropriate forms or maps for each cluster the team is assigned.

Several pages of the Supervisor's Assignment Sheet will usually be needed to list all of the selected households in a cluster. The cluster number and name of locality should be filled in on all of the pages, and they should be numbered sequentially in the space provided at the top of the sheet (e.g., page 1 of 5, page 2 of 5). If an additional sheet is needed, either because additional households were found during the interviewing or because a household has more than three eligible women, the supervisor should staple that sheet to the others for that cluster and correct the total number of sheets reported for the cluster.

Using the guidelines in Section III, the supervisor should assign each interviewer a number of households to interview. When making household interview assignments, columns 1–4 of the Supervisor's Assignment Sheet should be completed.

The interviewer is then responsible for (1) interviewing the assigned households; (2) determining who in the household is eligible for interview with the Woman's Questionnaire; and (3) interviewing all the eligible women in the household.

At the end of each day, the interviewers will return the completed questionnaires to the supervisor for checking. In the case of PDA/tablet reporting forms, if it is not possible to upload the forms to the supervisors, each interviewer should turn their PDA/tablet in to the supervisor for review. The supervisor should review the Household, Biomarker and Woman's Questionnaires to check that—

1. Eligible women have been correctly identified on the Household Questionnaire;

2. Each eligible woman has a Woman's Questionnaire, even if the interview was not completed;

3. Each household with someone eligible for biomarkers has a Biomarker Questionnaire; and

4. The identification information on the cover pages of the Household, Biomarker and Woman's Questionnaires is correct.

Next, copy the information from the questionnaires about the results of the interview into Columns (5) through (12) of the Supervisor's Assignment Sheet. Record the final result of the household interview in Column (5), the number of children 6-59 months eligible for biomarker testing in Column (6), the line number of each eligible child in Column (7) and select "Y" or "N" to indicate if the child was tested for anemia in Column (8) and/or parasitemia in Column (9). Record the number of eligible women in Column (10), the line number of each eligible woman in Column (11), and the final result of the individual interviews in Column (12).

If there are more eligible women in a household than there is space on the Supervisor's Assignment Sheet, the results for that household should be entered on the final page of the Supervisor's Assignment Sheet. Put a line through the information for that household where it was originally listed and put a note "See p. 5." On page 5, use the space for two households so that there is room to list up to six eligible women.

Remarks and comments about the interview assignment, results, or interviews may be recorded in Column (13). For example, reassignment of a pending interview or a change in the name of a household head may be recorded here. Also note here any irregularities observed during spot-checks or reinterviews.

Check to be sure that you have listed all the households on the Supervisor's Assignment Sheet that were selected on the household listing form or map for that cluster. To ensure this, you are required to fill in the two boxes at the bottom of the Supervisor's Assignment Sheet marked "Number of Households Selected" and "Number of Household Questionnaires." There can never be fewer Household Questionnaires than selected households or dwellings, but there can be more.

Record the number of women's questionnaires on the Supervisor's Assignment Sheet as well as the number of children 6-59 months and the number of children tested for anemia and for parasitemia.

Always start a new cluster on a separate Supervisor's Assignment Sheet. This sheet should be included in the package of questionnaires going back to the central office. Be sure to write neatly because these forms will be used for control purposes in the central office. See Annex 2 for an example.

B. Interviewer's Assignment Sheet

Each interviewer will fill out an Interviewer's Assignment Sheet for each cluster (it may be necessary to use more than one sheet per cluster). The Interviewer's Assignment Sheet is similar to the Supervisor's Assignment Sheet and helps each interviewer keep track of the households assigned to her. The supervisor should review the Interviewer's Assignment Sheets each evening and discuss the results of the interviews. The Interviewer's Assignment Sheet is described in detail in the Interviewer's Manual. See Annex 3 for an example.

C. Blood Sample Transmittal Sheet

Surveys including microscopy testing will use a separate form called the Blood Sample Transmittal Sheet. This sheet will hold one bar code label for each person in the cluster from whom a blood sample was collected for microscopy testing. The form is used to help keep track of the number of blood samples taken in each cluster. For further details, see Annex 4 and the MIS Biomarker Field Manual.

D. Interviewer Progress Sheet

The supervisor will keep an Interviewer Progress Sheet (see Annex 5) on each interviewer. The supervisor will update the Progress Sheet at the end of work in each cluster. The supervisor will keep these sheets until the end of fieldwork (they will not be included in the package of questionnaires going back to the central office).

The Interviewer Progress Sheet is designed to give the supervisor an objective and continuous measure of the interviewer's performance. Serious discord within a team can occur when one interviewer does much less work than the others. These cases must be identified and examined to assess whether there is good reason for lower performance or whether the interviewer is just taking it easy and leaving her colleagues to do most of the work. Similarly, this sheet will allow you to identify whether an interviewer is getting more nonresponses or refusals than others on the team. In such a case, spot-checking should be carried out to determine whether the nonresponses or refusals are because of poor interviewer performance. If the interviewer is at fault, the supervisor should have a serious talk with her, pointing out the problems, suggesting ways she can improve, and indicating that she must perform better. If her performance does not improve, the director of field operations must be informed. He or she will decide what further action to take.

Assign one Interviewer Progress Sheet for each interviewer. The supervisor will make entries on the sheet each time a cluster is completed. The procedure for filling in the Interviewer Progress Sheet is as follows:

- Column (1): Enter each cluster number on a separate line in Column (1).
- Columns (2) and (4): For each cluster, enter the number of completed Household Questionnaires (i.e., with result code '1') in Column (2) and the number of Household Questionnaires not completed (with result codes '2' through '9') in Column (4).

- Columns (6) and (8): Enter the number of Woman's Questionnaires completed in Column (6) and the number not completed in Column (8).
- Columns (3), (5), (7), and (9): The figures recorded in these columns are cumulative for all clusters. In Column (3), you will keep a cumulative count of the numbers recorded in Column (2), and in Column (5), you will keep a cumulative count of the numbers recorded in Column (4), etc. (see example in Annex 5).

The cumulative figures make it possible to check at any time the number of interviews assigned to an interviewer and the results of her work. The supervisor can also check to see whether the workloads and the completion rates are approximately the same for all interviewers.

V. MONITORING INTERVIEWER PERFORMANCE

Controlling the quality of the data collection is one of the most important functions of the supervisor. Throughout the fieldwork, the supervisor will be responsible for observing interviews and carrying out field editing. By checking the interviewers' work regularly, the supervisor can ensure that the quality of the data collection remains high throughout the survey. It may be necessary to observe the interviewers more frequently at the beginning of the survey and again toward the end. In the beginning, the interviewers may make errors because of lack of experience or lack of familiarity with the questionnaire; these errors can be corrected with additional on-the-job training as the survey progresses. Toward the end of the survey, interviewers may become bored or lazy in anticipation of the end of fieldwork; lack of attention to detail may result in carelessness with the data. To maintain the quality of data, the supervisor should check the performance of interviewers thoroughly at these times.

A. OBSERVING INTERVIEWS

The purpose of the observation is to evaluate and improve interviewer performance and to look for errors and misconceptions that cannot be detected through editing. It is common for a completed questionnaire to be technically free of errors but for the interviewer to have asked a number of questions inaccurately. Even if the supervisor does not know the language in which the interview is being conducted, she/he can detect a great deal from watching how the interviewer conducts herself, how she treats the respondent, and how she fills out the questionnaire. The supervisor should observe each interviewer many times throughout the course of fieldwork. The first observation should take place during interviewer training and may be used as a screening device in the selection of interviewer candidates. Each interviewer should also be observed during the first two days of fieldwork so that any errors made consistently are caught immediately. Additional observations of each interviewer's performance should be made during the rest of the fieldwork. The supervisor should observe at least one interview per day during the course of the fieldwork, with the heaviest observation at the beginning and end.

During the interview, the supervisor should sit close enough to see what the interviewer is writing. This way he or she can see whether the interviewer interprets the respondent correctly and follows the proper skip patterns. It is important to write notes of problem areas and points to be discussed later with the interviewer. The supervisor should not intervene during the course of the interview and should try to conduct her-/himself in such a manner as not to make the interviewer or respondent nervous or uneasy. Only in cases where serious mistakes are being made by the interviewer should the supervisor intervene.

After each observation, the supervisor and interviewer should discuss the interviewer's performance. The questionnaire should be reviewed, and the supervisor should mention things that the interviewer did correctly as well as any problems or mistakes, which should be corrected at this time, if possible.

B. EVALUATING INTERVIEWER PERFORMANCE

The supervisor should meet daily with the interviewers to discuss the quality of their work. In most cases, mistakes can be corrected and interviewing style improved by pointing out and discussing errors at regular meetings. At team meetings, the supervisor should point out mistakes discovered during observation of interviews or noticed during questionnaire editing (see Chapter VI). She/He should discuss examples of actual mistakes, being careful not to embarrass individual interviewers. Rereading relevant sections from the Interviewer's Manual together with the team can help resolve problems. The supervisor can also encourage the interviewers to talk about any situations they encountered in the field that were not covered in training. The group should discuss whether the situation was handled properly and how similar situations should be handled in the future. Team members can learn a lot from one another in these meetings and should feel free to discuss their own mistakes without fear of embarrassment.

The supervisor should expect to spend considerable time evaluating and instructing interviewers at the start of fieldwork. If they feel that the quality of work is not adequate, the interviewing should stop until errors and problems have been fully resolved. In some cases, an interviewer may fail to improve and will have to be replaced. This applies particularly in the case of interviewers who have been dishonest in the recording of ages of women and/or children.

C. REINTERVIEWS

As said before, the most important function of the supervisor is to ensure that the information collected by the interviewers is accurate. A powerful tool in checking the quality of the data is to systematically spotcheck the information for particular households. This is done by conducting a short reinterview in some households and checking the results with what was collected by the interviewer. Reinterviews help reduce three types of problems that affect the accuracy of the survey data.

First, reinterviews are used to check that the interviewer actually interviewed the selected household. Sometimes interviewers either inadvertently locate the wrong household or they may deliberately interview a household that is smaller or a household in which someone is home at the time they are in that area, thus making it easier to finish their work quickly. Occasionally, an interviewer may not interview any household and just fill in a questionnaire on her own. Reinterviews are a means of detecting these problems.

Another problem that may arise is that some interviewers may deliberately subtract years from the age of women who are age 15 to 19 or add years to women who are over 45 to place them outside the age range of eligibility for the Woman's Questionnaire. Sometimes interviewers may simply omit eligible women from the household listing, especially if they are visitors in the household. In these ways, they reduce their workload. If this happens frequently, it can have a substantial effect on the quality of the data.

Similarly, interviewers may deliberately subtract a year or two from the date of birth of a child to avoid having to ask all of the questions in Section 4 for that child. A shrewd interviewer may also change the age of the child on the Household

Questionnaire to avoid suspicion by people checking the questionnaires. Or, interviewers may omit listing a child altogether.

It is also important to ensure that the interviewer has administered the informed consent properly, so the person conducting the reinterview should also ask the respondent if he/she was fully informed by the interviewer about the voluntary nature of participation, the confidentiality of the information provided, and other key aspects of informed consent.

To reduce the occurrence of such problems, supervisors will be responsible for conducting one reinterview in each cluster. The supervisor should focus the reinterviews on households that contain women at the borderline ages—that is, 12–14 and 50–52 or children age 6. Supervisors should also make sure that households from all of the team's interviewers are occasionally reinterviewed. The reinterview should, if possible, be made on the same day as the interviewer's visit so that any visitors who stayed there the night before can still be contacted.

To conduct the reinterview, the supervisor should take a blank Household Questionnaire, fill in the identification information on the cover sheet with a red pen, and write clearly "Reinterview" on the top of the cover page. The supervisor should then visit the selected household with only the reinterview questionnaire (i.e., without taking the original questionnaire) and interview the household, filling in columns (2) through (9) of the Household Questionnaire only. After completing the reinterview, the supervisor should obtain the original questionnaire and compare the information. She/He should write the results of the comparison on the reinterview questionnaire—for example, "identical listings," "Person on Line 02 not in original questionnaire," "Person on Line 05 in original questionnaire not there now," "Child on Line 06 was age 07 in original questionnaire," or "Eligible woman on Line 08 not in original questionnaire."

Some differences in information are to be expected, especially if a different household member is interviewed during the reinterview. However, if the supervisor discovers an eligible woman who was not identified in the original interview, she/he should bring this to the interviewer's attention and send her back to interview the eligible woman. Similarly, if a child who is under five was either omitted from the original questionnaire or listed as being age five or older in the original questionnaire, the interviewer should return to gather the missing information on the original questionnaire.

If such omissions or displacements occur frequently with the same interviewer, the supervisor should check the interviewer's work closely. Interviewers will be less tempted to displace or omit women or births if they know that this practice will be exposed during reinterviews.

The reinterview questionnaires should be included with the other materials sent back to the central office when fieldwork in the cluster is completed.

VI. EDITING QUESTIONNAIRES

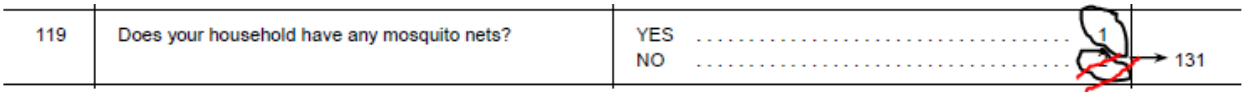
Ensuring that questionnaires are edited for completeness, legibility, and consistency is one of the most important tasks of the supervisor. *Every* questionnaire must be completely checked in the field. This is necessary because even a small error can create much bigger problems after the information has been entered into the computer and tabulations have been run. Often, small errors can be corrected just by asking the interviewer. For example, if an answer of '02 months' is inconsistent with another response, the interviewer may recall that the respondent said '2 years,' and the error can easily be corrected. In other cases, the interviewer will have to go back to the respondent to get the correct information. Timely editing permits correction of questionnaires in the field.

Since errors make the analysis of the data much more difficult, the data processing staff has prepared a computer program that will check each questionnaire and print out a list of all errors. If the errors are major ones, an entire questionnaire may be omitted from the analysis. As you are editing questionnaires in the field, it may help to try imagining how the questionnaire would look to a clerk in the office. Would he or she be able to read the responses? Are the answers consistent? Because editing is such an important task, we have prepared a set of instructions that describe the procedures for editing questionnaires.

A. GENERAL INSTRUCTIONS

1. Correct errors following the system described in the Interviewer's Manual, e.g., drawing two lines through the existing code and circling or entering the new response.

ALWAYS USE A RED PEN TO MAKE CORRECTIONS.



Blue pens are NOT to be used by supervisors or editors.

2. As you go through the questionnaires, if a response is missing for a question that was supposed to be asked (that is, there is no answer recorded because the question was not asked) or the response is inconsistent with other information in the questionnaire and you cannot determine the correct response, put a question mark ('?') next to the item *with a red pen*.

3. As you review questionnaires, write the page number or the question number on the front or back of the questionnaire; this way, you can quickly remember later what problems you found. When you have completed the editing, discuss with each interviewer, individually, the observations you found. Refer to the page/question numbers you wrote on the front or back of the questionnaire to be sure you address all the problems you found. Any errors that you find frequently should be discussed with the whole team.

4. If the problems are major, such as discrepancies in the birth history or the health sections, it will be necessary to go back to interview the respondent again. If a return visit is not possible, try to establish, with the interviewer's assistance, the correct response from other information in the questionnaire. For example, if there is no code circled to indicate a person's sex, you might be able, with the interviewer's help, to determine the sex from the person's name.

UNDER NO CIRCUMSTANCES SHOULD YOU MAKE UP AN ANSWER.

If it is not possible to return to the household to resolve inconsistencies or missing information, then leave the items as they are. Do not try to fill in every question or to make the questionnaire consistent.

5. In checking through each questionnaire, be sure that the numbers entered in boxes are readable and that the circles used by the interviewer to select the pre-coded numbers clearly mark only one of the choices (except in cases where more than one code is allowed).

6. In checking each questionnaire, make certain that the respondent was asked all questions appropriate for her (check that the interviewer followed the skip instructions). You will need to look for—

a. Questions for which a response is recorded when it appears there should be *no* response (in this case, cross out the response by drawing two parallel lines through the code *with your red pen*).

b. Questions for which *no* response is recorded when it appears there *should* be a response (in this case, work with the interviewer to determine whether the correct response is known, but never make up a response. If the response is not known, leave it blank).

7. Check the ranges for all variables that are not pre-coded (e.g., a woman cannot have 24 sons living with her) and carry out the other consistency checks that are listed. Mark any inconsistencies *with a red pen*.

8. The supervisor should follow up on the questionnaires that have been returned to interviewers for further work. All questionnaires for a given cluster that have been edited and corrected should be arranged in numerical order according to the household or dwelling number (see Section D: Organizing Questionnaires for Return to the Office).

B. EDITING THE HOUSEHOLD QUESTIONNAIRE

Check to see that *skip* and *filter* instructions have been followed, that answers are readable, and that answers to related questions are consistent. In editing the Household Questionnaire, it is important that these guidelines are followed:

1. Cover Page

a. Check that the household identification information has been completed correctly.

b. Code the information on the cover page of the Household Questionnaire if the interviewer has not done so. If the final result code is

not ‘1,’ check to see that the remaining pages are blank. If the final result code is ‘1,’ continue to check the rest of the Household Questionnaire.

c. Check that the Total Persons in Household recorded on the cover sheet is equal to the number of people listed in the Household Schedule and that Total Eligible Women on the cover page is equal to the number whose line numbers are circled in Column (8).

d. CONTINUATION SHEET: If there are more than 20 household members, check that the box indicating that a continuation sheet was used at the bottom of the listing of household members is ticked and that a second Household Questionnaire (marked ‘Continuation’) is completed for the household. Compare the information in the identification section of the original and continuation questionnaires to be sure it is correct.

e. Check that the information on the language of interview has been completed correctly. If a translator was used, check that the response has been recorded correctly.

f. Check that the informed consent statement has been signed by the interviewer.

g. Check that Q.100 has been filled using the correct time format (24 hour) and that the time recorded is plausible.

2. Household Schedule

a. ***Columns (3) through (7): Relationship to Household Head, Sex, Residence and Age***. These columns should be completed for each person listed in Column (2) as a usual household resident or visitor. There should be no blanks in these columns.

b. ***Columns (8) and (9): Eligibility***. Check that the line numbers of all women age 15–49 have been circled in Column (8). Check that the line numbers of all children age 0–5 have been circled in Column (9). If you find errors regarding eligible respondents in the household, check with the interviewer to make certain the correct number of interviews have been conducted in that household. *Check the boxes to the right* of the three questions at the bottom of the listing of persons to make sure the interviewer marked these questions.

c. Check that the Total Persons in Household recorded on the cover sheet is equal to the number of people listed in the Household Schedule and that Total Eligible Women on the cover page is equal to the number whose line numbers are circled in Column (8).

d. Check that the number of Woman’s Questionnaires returned with each Household Questionnaire is the same as the number of eligible women reported on the cover page. Speak with the interviewer when there is any inconsistency.

e. QUESTIONS (2A) THROUGH (2C). Check the YES/NO boxes to these three questions at the bottom of the listing of persons to make sure the interviewer tried to obtain a complete listing.

3. Household Characteristics

a. Check that answers to Questions 101 through 116 on household amenities have been recorded. Note that there should be a '1' or '2' circled for each of the items listed in Questions 114 and 115. None of these items should be left blank.

b. If the answer to Question 110 is YES (animals are owned), check that each row of Questions 111a through 111f are filled in with how many of each is owned.

c. Check that answers to Questions 117 and 118 on indoor residual spraying have been recorded.

d. Check that the answers to Questions 121 through 130 on each mosquito net have been recorded. Check that the number of nets recorded in Question 120 matches the number of nets reported in Question 121 MOSQUITO NET columns, up to 7 nets.

e. Check question 123. If many cases of "OTHER" are found of a particular brand that is not pre-coded on the questionnaire (Code 16), inform the survey management team.

f. In Question 129, check that the Name and Line Number marked on household members who slept in the household the previous night is correct according to the information in the Household Schedule.

g. Check that answers to questions 131-133 have been recorded.

h. Verify that the time has been entered into Question 134 using the correct time format (24 hour) and that the duration of the interview (using time recorded in Question 100) is plausible.

C. EDITING THE WOMAN'S QUESTIONNAIRE

[THE INSTRUCTIONS ASSUME FIELDWORK WAS CARRIED OUT IN 2016. ADJUSTMENTS MUST BE MADE FOR SURVEYS EXECUTED IN SUBSEQUENT YEARS.]

Check to see that *skip* and *filter* instructions have been followed, that answers are readable, and that answers to related questions are consistent. In editing the Woman's Questionnaire, it is important that the following guidelines be followed.

Cover Sheet

a. Check that the identification information has been completed correctly. This information must be the same as that on the cover sheet of the Household Questionnaire. Check that the line number of the woman is the same as it is in the Household Questionnaire.

b. Code the information on the cover sheet if the interviewer has not done so. If the final result is not '1' or '5,' check to see that the remaining pages are blank. If the final result is either '1' or '5,' continue to check the remaining pages of the Woman's Questionnaire.

c. Check that the information on the language of interview has been completed correctly. If a translator was used, check that the response has been recorded correctly.

Section 1. Respondent's Background

a. ***Informed Consent.*** Check that the informed consent statement has been signed by the interviewer.

b. ***Question 101: Time Started Interview.*** Check that the hour in Q. 101 is less than 24 and the minutes are less than 60.

c. ***Questions 102–103: Date of Birth.*** Check that the answer to Q. 102 (month of birth) is either between '01' and '12' or '98,' that year of birth is not less than ['1966'] and not greater than ['2001'] or is '9998,' and that Q. 103 is between '15' and '49.' Q. 103 must have an answer even if it is only the interviewer's best estimate. It can never be left blank. Also check that the date of birth and age are consistent. If these responses are inconsistent, discuss this with the interviewer. The age response in Q. 103 does not have to be consistent with the age recorded for the woman in the Household Questionnaire. Do not change either response unless there is an obvious recording error.

   If at all possible, an effort should be made to revisit the respondent to resolve inconsistencies with age because it is one of the most important pieces of information collected in the questionnaire. If a revisit cannot be scheduled, it may be necessary to look at other information in the Household and Woman's Questionnaires in an attempt to resolve the inconsistency. Items that should be considered include the following:

   - Age recorded for respondent in Household Questionnaire (Column 7)
   - Number of live births (Q. 208)
   - Date of birth of respondent's first child (Q. 215)

d. ***Question 103: Eligibility.*** If the respondent's age is either less than '15' or more than '49,' write "NOT ELIGIBLE" on the cover of the Woman's Questionnaire. This questionnaire should not be processed. Also check, and correct if necessary, the age of this woman in the Household Questionnaire.

Questions 104–106: Education. Make sure that the response given to Q. 106 is consistent with the level of education given in Q. 105. **Section 2. Reproduction**

a. ***Question 208: Children Ever Born.*** Check that Q. 208 is equal to the sum of the six values in Qs. 203, 205, and 207. Q. 208 must have a code filled in. If the respondent has never had any births, the interviewer should have circled code '00' in Q. 208. Make sure the interviewer has marked the appropriate box in Q. 209 and Q210.

b. ***Question 210: Total Number of Births in the Last Six Years.*** Check that the total number of births in the last six years listed in the birth history is equal to the number in Q. 210. If fewer births are recorded in the birth history for the last six years than in Q. 210, you will have to send the interviewer back to the respondent to complete the information. If more births are listed in the birth history for the last six years, correct Q. 210 to be consistent with the number of births recorded in the history.

c. ***Questions 215 and 217: Age of Living Children.*** Check the consistency of Qs. 215 and 217 for each living child listed in the birth history for the last six years. Either the Arithmetic or Chart Method described in the Interviewer's Manual may be used to perform this check.

d. ***Birth Order.*** Using the information in Q. 215, check that births are listed in order. If you find a birth out of order, correct it by drawing arrows and changing the order numbers printed on the left of Q. 212.

e. ***Birth Intervals.*** After checking the birth order, check that the interval between births is at least nine months unless the two births checked are twins. If the interval between two single births is less than nine months, the interviewer (or the supervisor) should return to check the information in the birth history with the respondent.

f. ***Checking Line Number.*** For all women who are usual members of the household (Column (5) in the Household Questionnaire for that woman is '1') and who report in the birth history that they have children under age six who live with them (Q. 218 is '1'), check that the line number in Q. 219 refers to the same person in the Household Schedule by comparing the name, age, and sex. Check that children under age six are listed in Qs. 1 through 9 of the Household Questionnaire. Check that the line number in Q. 1 is the same as in Q. 219 and that the name and age of the child are the same in both questionnaires.

g. If you find that a child is listed in the Woman's Questionnaire as being under age six and living with the mother who is a usual member of the household and the child is not listed in Q102 of the Biomarker Questionnaire, check Columns (1) through (7) of the Household Schedule to try to resolve the discrepancy. It might be that in the Household Schedule, the child is listed as being age six or older, while in the Woman's Questionnaire, the child is under age six. In this case, you will need to find out which age is correct, probably by returning to the household. If the child is under age six, you will need to change the child's age in Column (7) of the Household Schedule to make the child eligible for hemoglobin and parasitemia testing in Q102-104 for the child in the Biomarker Questionnaire. A team member will have to

return to the household to collect the biomarker data in Q 105-130 of the Biomarker Questionnaire.

h. ***Age at First Birth.*** If the respondent tells you that all her children were born in the last six years, after checking the birth order, use the respondent's age (Q. 103) and the age of her first-born child to check that she was at least 12 years of age at her first birth. Inconsistencies between the age of the respondent and the date of the first birth generally arise because—

- The child is not the respondent's own (biological) child;
- The respondent's birth date or age (Qs. 102 and 103) is incorrect; or
- The birth date and/or age of the first child (Qs. 215 and 217) is incorrect.

A callback to the respondent should be made, if at all possible, to determine the source of error.

Section 3. Pregnancy and Intermittent Preventive Treatment

a. ***Identification.*** Check the information in the birth history to make certain that **the last birth since January [2010] has been entered in Q. 301.** Check that the name and survival status are identical to those in the birth history. Questions in Section 3 should be asked about the pregnancy whether or not the child is still alive. If the respondent has had no births since January [2010], Section 3 will not be asked, but check that the interviewer properly skipped to Q. 429.

b. ***Skips and Filters.*** Check the skip pattern throughout the section; make sure that all filters have been correctly marked and that the proper questions were asked.

Section 4. Fever in Children

a. ***Identification.*** Check the information in this section to make certain that **each living child born since January [2010] has been entered in Q. 402 with the youngest child in the left-hand column.** Check that the line number and name are identical to those in the birth history. The line number should be the same as in Q. 212, not the line number from the Household Schedule. Questions in Section 4 should only be asked for living children and NOT for children who have died. If the respondent has had no living children born since January [2010], Section 4 will not be asked, but check that the interviewer properly skipped to Q. 428.

b. ***Skips and Filters.*** Check that filters were correctly marked and skip instructions followed.

Summary of Editing Checks for the Woman's Questionnaire

1. Range and consistency of Qs. 102 and 103
2. Consistency of Qs. 105 and 106
3. Numerical consistency of Qs. 203, 205, 207, and 208

4. Numerical consistency of the birth history with Q. 210
5. Consistency of Qs. 215 and 217
6. Consistency of line number in Q. 219 and Household Schedule
7. Consistency of birth order with Q. 215
8. Birth intervals nine months or more, age at first birth 12 or older
9. The last birth since January [2010] is recorded in Q. 301
10. All living children born since January [2010] are listed in Q. 402
11. Consistency of line number and name in Q. 402 with the birth history in the last six years

D. Editing the Biomarker Questionnaire

Cover Sheet

a. Check that the identification information has been completed correctly. This information must be the same as that on the cover sheet of the Household Questionnaire.

b. Check that the information on the language of interview has been completed correctly. If a translator was used, check that the response has been recorded correctly.

Anemia and Parasitemia Test for Children

a. ***Question 102:*** Check Question 102 to see that all children under age six are listed. This can be cross referenced with the children circled in Column (11) of the household questionnaire. The line numbers, and names correspond to the information in Columns (1), (2), and (7).

b. ***Questions 103-106:*** Check that questions 103–106 are filled in as appropriate for all children under age six.

c. ***Questions 107–108: Anemia Test Consent.*** Check that procedures for obtaining consent from a parent or other adult responsible for children ages 6 months and older were followed correctly. Check that the interviewer has signed the anemia consent statement.

d. ***Questions 109–110: Malaria Test Consent.*** Check that procedures for obtaining consent from a parent or other adult responsible for children ages 6 months and older were followed correctly. Check that the interviewer has signed the malaria test consent statement.

e. ***Questions 113, 116, 120: Outcome of Hemoglobin Measurement.*** Check that a hemoglobin level or another code for nonresponse is recorded in Q. 113 for every eligible child for which code '1' (GRANTED) is circled in Q. 108. Check that a code is circled in either Q. 116 (if child is negative for malaria or was not tested) OR Q. 120 (if child is positive for malaria).

f. ***Questions 114–115: Outcome of Malaria Test.*** Check that a result code is recorded in Q. 114 for every eligible child for which code '1'

(GRANTED) is circled in Q. 110 and that a result is recorded in Q. 115 for every child with a response of "1" in Q. 114.

g. ***Questions 124–125: Malaria Treatment Consent.*** Check that the interviewer has signed the malaria treatment consent statement for children code '1' (POSITIVE) is circled in Q. 215, code '1' is circled in Q. 219, and code '2' (NO) is circled in Q. 221 (children testing positive for malaria who do not have symptoms of severe malaria and who have not already taken recommended treatment from another source).

h. ***Question 118: Severe Malaria Symptoms.*** Check that each question, Q118a-Q118h, has either a '1' or a '2' selected.

i. ***Question 126: Malaria Treatment or Referral.*** Check that a response has been circled for Q. 126 that corresponds to the responses for Q. 125 and Q. 121.

E. Organizing Questionnaires for Return to the Office

1. Put all of the Woman's Questionnaires inside their respective Household Questionnaires. If there is more than one Woman's Questionnaire in a household, organize them sequentially in ascending order of the line numbers of the respondents. Put Biomarker Questionnaires after the Woman's Questionnaires.

2. Organize the Household Questionnaires in numerical order by household number within the cluster. In addition, any continuation questionnaires (e.g., if there are more than three mosquito nets in the household) should be inside the primary questionnaire and should have "Continuation" written across the top of the cover sheet. The primary questionnaire for that set should say "See Continuation" across the top of the cover sheet.

3. Check the questionnaires against the Supervisor's Assignment Sheet to be sure that—

a. The correct number of Household Questionnaires is present;

b. The household final result codes are correct;

c. The correct number of Woman's Questionnaires is present;

d. The Woman's final result codes are correct; and

e. A Biomarker Questionnaire is present for every household that was eligible for biomarkers.

Remember, there must be a Woman's Questionnaire assigned for each eligible woman, even if the interview was not conducted. Those questionnaires will be blank except for the identification information and the result codes.

F. FORWARDING QUESTIONNAIRES TO THE HEAD OFFICE[2]

After all the checking described above has been completed, the supervisor should put all the questionnaires along with the Supervisor's Assignment Sheet and the sketch maps for the sample point into the envelopes provided. On the outside of the envelope, she should write the cluster number, the name of the locality, and the number of Household Questionnaires for that cluster. If the questionnaires are too bulky to fit into one envelope, she should use two or more and write "Packet 1 of 3," "Packet 2 of 3," etc., on the outside of each envelope. The packets should be kept securely until they can be transported to the central office. It is very important that questionnaires are bundled and labeled properly and protected from dampness and dust. [Include or replace with country-specific instructions on bundling, labeling, and shipment.]

[2] In countries where data are collected using PDAs/tablets, instructions on sending information to the head office will need to be modified.

ANNEX 1: EXAMPLE SUPPLY LIST

[illegible] Supply List for the Field

	Biomarker supplies -- quantities per health technician team --				Interviewer, Supervisor supplies -- quantities per individual field staff --			
	PER DAY		PER CLUSTER			PER DAY		PER CLUSTER	
	20		120	Consent forms (parent/guardian)		6		32	Biomarker questionnaires
	10		57	Assent forms (children >6 years)		20		120	Consent forms (household interview)
	5		29	Referral forms		20		120	Consent forms (women's interview)
	6		32	Malaria/anaemia brochures		10		57	Consent forms (women, parental consent)
	20		120	Disposal latex gloves (pairs)		1		1	Tablet (fully charged)
	20		120	Alcohol swabs		1		1	Tablet charger (portable or for use in lodging)
	20		120	Sterile gauze pads		1		1	SD card
	10		60	Adhesive bandages		1		1	Airtime
	20		120	Retractable lancet		1		1	Blue Biro pen
	5		32	Absorbant sheet		1		1	Notepad
	1		1	Hemocue 301+ (with batteries)		1		1	Interviewer's Manual
	0		<1	Hemocue cleaner		1		1	Bag/backpack
	10		60	Microcuvettes		1		1	Supervisor's Manual (supervisor only)
	10		60	RDT packet		1		1	Modem (supervisor only)
	1		1	Timer		1		1	Data bundle (supervisor only)
	10		60	Slide spreader					
	20		120	Slides					
	1		1	Cardboard slide folder					
	1		1	Biohazard bag					
	1		1	Sharps container					
	5		20	Dessicants					
	0		1	Cool box					
	2		6	Slide boxes					
	2		2	Ziploc bag					
	1		1	Airtime					
	1		1	Bag/backpack					
	1		1	Blue Biro pen					
	1		1	Notepad					
	1		1	Torch					
	1		1	Biomarker Manual					
**the following to remain at lodging and not to be taken to the field									
	1		1	Coplin Jar					
	1		1	Absolute methanol (~100ml)					
	1		1	Slide drying rack					

Assumes 1.89 children/HH (about 60 children/cluster), ~5 HH/day, 30 HH/cluster, 6% contingency

ANNEX 2: SUPERVISOR'S ASSIGNMENT SHEET

SUPERVISOR'S ASSIGNMENT SHEET

SUPERVISOR'S NAME_____ ☐☐☐☐

CLUSTER NUMBER ☐☐☐☐ NAME OF

LOCALITY_____

PAGE _____ OF _____ PAGES

HOUSEHOLDS					CHILDREN				WOMEN			
MIS HOUSE-HOLD NUMBER (1)	STRUC-TURE NUMBER OR ADDRESS (2)	NAME OF HOUSEHOLD HEAD (3)	INTER-VIEWER AND DATE ASSIGNED (4)	INTER-VIEW FINAL RESULT (5)*	TOTAL CHILDREN 6 MOS-5 YRS (6)	LINE NUMBER OF ELIG. CHILD (7)	TESTED FOR ANEMIA (8)	TESTED FOR PARASITEMIA (9)	TOTAL ELIGIBLE WOMEN (10)	LINE NUMBER OF ELIG. WOMAN (11)	INTER-VIEW FINAL RESULT (12)**	NOTES (13)
							Y N	Y N				
							Y N	Y N				
							Y N	Y N				
							Y N	Y N				
							Y N	Y N				
							Y N	Y N				
							Y N	Y N				
							Y N	Y N				
							Y N	Y N				
							Y N	Y N				
							Y N	Y N				

							Y N	Y N				

*CODES FOR COLUMN (6)

1 COMPLETED
2 NO HH MEMBER AT HOME/NO COMPETENT RESPONDENT
3 ENTIRE HH ABSENT FOR EXTENDED PERIOD
4 POSTPONED
5 REFUSED
6 DWELLING VACANT/ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER

*CODES FOR COLUMN (12)
**CODES FOR COLUMN (12) AND (16)

1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 INCAPACITATED
7 OTHER

NUMBER OF HOUSEHOLDS SELECTED	NUMBER OF HOUSEHOLD QUESTIONNAIRES	NUMBER OF WOMAN'S QUESTIONNAIRES

NO. OF CHILDREN 6 MOS-5YRS	NO. OF CHILDREN TESTED FOR ANEMIA	NO. OF CHILDREN TESTED FOR PARASITEMIA

ANNEX 3: INTERVIEWER'S ASSIGNMENT SHEET

[YEAR] [COUNTRY] MIS INTERVIEWER'S ASSIGNMENT SHEET

PAGE _____ OF _____ PAGES

CLUSTER NUMBER	INTERVIEWER NAME	INTERVIEWER NUMBER	COUNT OF BLOOD SLIDES

HOUSEHOLD				CHILDREN				WOMEN			
LMIS HOUSE-HOLD NUMBER (1)	STRUC-TURE NUMBER OR ADDRESS (2)	NAME OF HOUSEHOLD HEAD (3)	INTER-VIEW FINAL RESULT (4)*	TOTAL ELIGIBLE CHILDREN 6 MOS-5 YRS (5)	LINE NUMBER OF ELIGIBLE CHILD (6)	TESTED FOR MALARIA AND ANEMIA (7)		TOTAL ELIGIBLE WOMEN (8)	LINE NUMBER OF ELIG. WOMAN (9)	INTER-VIEW FINAL RESULT (10)*	NOTES (11)
						Y	N				
						Y	N				
						Y	N				
						Y	N				
						Y	N				
						Y	N				
						Y	N				
						Y	N				
						Y	N				
						Y	N				
						Y	N				
						Y	N				
						Y	N				
						Y	N				
						Y	N				
						Y	N				
						Y	N				
						Y	N				
						Y	N				
						Y	N				
						Y	N				
						Y	N				

						Y	N					
						Y	N					
						Y	N					
						Y	N					
						Y	N					
						Y	N					
						Y	N					
						Y	N					

CODES FOR COLUMN (4)*

1 COMPLETED
2 NO HH MEMBER AT HOME
3 ENTIRE HH ABSENT FOR EXTENDED PERIOD
4 POSTPONED
5 REFUSED
6 DWELLING VACANT/ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER

CODES FOR COLUMN (10)*

1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 INCAPACITATED
7 OTHER

TOTAL NUMBER OF HOUSEHOLD QUESTIONNAIRES ☐☐	TOTAL NUMBER OF WOMAN'S QUESTIONNAIRES ☐☐	NUMBER OF CHILDREN ELIGIBLE FOR ANEMIA AND MALARIA TESTING ☐☐	NUMBER OF CHILDREN TESTED FOR ANEMIA AND MALARIA ☐☐

ANNEX 4: BLOOD SAMPLE TRANSMITTAL FORM

[YEAR] [COUNTRY] [MALARIA INDICATOR] SURVEY

MICROSCOPE SLIDE TRANSMITTAL FORM (FRONT SIDE)

CLUSTER NUMBER | | | | |

PERSON SENDING/ RECEIVING SAMPLES	TIME TO FILL IN FORM	TOTAL COUNT OF MICROSCOPE SLIDES	SIGNATURE (CONFIRMING THAT EACH SLIDE IS PRESENT - SEE BACK OF FORM)	NAME	DATE	NOTES (NOTE ANY DISCREPANCY IN NUMBERS OF SLIDES)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
TECHNICIAN	WHEN CLUSTER IS COMPLETED					
TEAM SUPERVISOR	WHEN CLUSTER IS COMPLETED					
FIELD COORDINATOR	WHEN SAMPLES ARE PICKED UP IN FIELD					
CENTRAL OFFICE RECEIVER	UPON ARRIVAL AT [IMPLEMENTING ORGANIZATION]					
LAB	UPON ARRIVAL AT LAB					

INSTRUCTIONS: GENERAL: Count the microscope slides. Count bar codes on the Microscope Slide Transmittal Form. Check both against each other and make sure the counts match.

Technician: Upon completion of a cluster, verify that the unique bar code (identification) number on each slide collected in that cluster number corresponds to a bar code number pasted to the back of this transmittal form and vice-versa. Note any discrepancies in Column (7). Count and record the total number of slides in Column (3). Sign your name in Column (4) and record your name in Column (5). Write the date in Column (6). Fold and store this transmittal form in the box containing the slides.

Team Supervisor: After the technician has verified the slides, you will conduct a second verification. Verify that the unique bar code (identification) number on each slide collected in that cluster number corresponds to a bar code number pasted to the back of this transmittal form and vice-versa. Note any discrepancies in Column (7). Count and record the total number of slides in Column (3). Sign your name in Column (4) and record your name in Column (5). Write the date in Column (6). Fold and store this transmittal form in the box containing the slides.

Field Coordinator: Before returning to the Central Office after visiting a team in the field, you will count and record the total number of thick and thin slides in Column (3). Sign your name in Column (4) and record the date in Column (6). Note any discrepancies in Column (7). Fold and store this transmittal form in the box containing the slides.

[IMPLEMENTING AGENCY]: For each cluster arriving from the field, verify that the unique bar code (identification) number on each slide collected in that cluster number corresponds to a bar code number pasted to the back of this transmittal form and vice-versa. Note any discrepancies in Column (7). Count and record the total number of slides in Column (3). Sign your name in Column (4) and record your name in Column (5). Write the date in Column (6). Make a

photocopy of the Microscope Slide Transmittal Form. Fold and store this transmittal form in the box containing the slides and send them to the Malaria Lab [NAME].

Laboratory: Upon receiving slides from [CENTRAL OFFICE], verify that the unique bar code (identification) number on each slide collected in that cluster number corresponds to a bar code number pasted on the back of this transmittal form and vice-versa. Count and record the total number of slides in Column (3). Sign your name in Column (4) and record your name in Column (5). Write the date in Column (6). Note any discrepancies in Column (7) and inform the [CENTRAL OFFICE]. Follow the [NAME OF COUNTRY] MIS protocol for storing and reading the slides.

[YEAR] [COUNTRY] [MALARIA INDICATOR] SURVEY

MICROSCOPE SLIDE TRANSMITTAL FORM (BACK SIDE)

CLUSTE

NO.	SLIDE BAR CODE	THICK SLIDE	THIN SLIDE	TECH.	LAB
1					
2					
3					
4					
5					
6					
7					
8					

NO.	SLIDE BAR CODE	THICK SLIDE	THIN SLIDE	TECH.	LAB
17					
18					
19					
20					
21					
22					
23					
24					

Fold here

9					
10					
11					
12					
13					

25					
26					
27					
28					
29					

14					
15					
16					

:
:
:
:
:
:

30					
31					
32					

ANNEX 5: INTERVIEWER PROGRESS SHEET

MIS INTERVIEWER PROGRESS SHEET
(USE A SEPARATE SHEET FOR EACH INTERVIEWER)

INTERVIEWER NAME _____ | | | | |

CLUSTER NUMBER (1)	HOUSEHOLD QUESTIONNAIRES				WOMAN'S QUESTIONNAIRES			
	NUMBER COMPLETED		NUMBER NOT COMPLETED		NUMBER COMPLETED		NUMBER NOTCOMPLETED	
	PER CLUSTER (2)	CUMULATIVE (3)	PER CLUSTER (4)	CUMULATIVE (5)	PER CLUSTER (6)	CUMULATIVE (7)	PER CLUSTER (8)	CUMULATIVE (9)